

COASTAL CONSERVANCY

Staff Recommendation

April 18, 2024

NORTH AND CENTRAL COAST WILDFIRE RESILIENCE MAPPING DATASETS

Project No. 24-011-01 and 24-012-01

Project Manager: Kostoula Vallianos and Lilly Allen

RECOMMENDED ACTION: Authorization to disburse up to \$1,089,749 to the County of Humboldt and the Coastal San Luis Resource Conservation District for two mapping projects that will develop critical data layers for north and central coast wildfire resilience planning.

LOCATION: Del Norte, Siskiyou, Modoc, Humboldt, Trinity, Mendocino, Lake, Napa, Sonoma, San Benito, Monterey, and San Luis Obispo Counties

EXHIBITS

Exhibit 1: [Project Location Maps](#)

Exhibit 2: [Project Letters](#)

RESOLUTION AND FINDINGS

Staff recommends that the State Coastal Conservancy adopt the following resolution and findings.

Resolution:

The State Coastal Conservancy hereby authorizes a grant of an amount not to exceed one million eighty-nine thousand seven hundred forty-nine dollars (\$1,089,749) to the County of Humboldt and the Coastal San Luis Resource Conservation District for two mapping projects that develop critical data layers for north and central coast wildfire resilience planning, as follows:

County of Humboldt: Three hundred sixty-two thousand forty nine dollars (\$362,049) for the development of lidar derivative datasets critical for wildfire resilience planning in the north coast for Del Norte, Siskiyou, Modoc, Humboldt, Trinity, Mendocino, Lake, Napa, and Sonoma Counties.

Coastal San Luis Resource Conservation District: Seven hundred and twenty seven thousand seven hundred dollars (\$727,700) for the development of lidar derivative datasets and wildfire mapping layers critical for wildfire resilience planning for Monterey, San Benito, and San Luis Obispo Counties.

Prior to commencement of each project, the grantee shall submit for the review and written approval of the Executive Officer of the Conservancy (Executive Officer) the following:

1. A detailed work program, schedule, and budget.
2. Names and qualifications of any contractors to be retained in carrying out the project.
3. A plan for acknowledgement of Conservancy funding.

Findings:

Based on the accompanying staff recommendation and attached exhibits, the State Coastal Conservancy hereby finds that:

1. The proposed authorization is consistent with Chapter 3 of Division 21 of the Public Resources Code, regarding the Climate Ready Program.
2. The proposed project is consistent with the current Conservancy Project Selection Criteria.

STAFF RECOMMENDATION

PROJECT SUMMARY:

Staff recommends that the Conservancy authorize disbursement of up to \$1,089,749 under the Conservancy's Wildfire Resilience Program to the County of Humboldt and the Coastal San Luis Resource Conservation District for two mapping projects that will develop critical data layers for north and central coast wildfire resilience planning.

The Conservancy's Wildfire Resilience Program supports local partners to develop and implement projects to increase wildfire resilience through improved management of natural lands and open space. Conservancy grants support a wide range of activities to accelerate future project implementation, including planning and capacity building. An overarching goal of the Wildfire Resilience Program is to build organizational capacity at the local and regional level to implement vegetation management and fire risk reduction projects. Healthy natural lands are less likely to burn and projects that increase fire breaks or clear ladder fuels help prevent isolated fires from becoming catastrophic wildfires.

This recommendation describes two projects proposed for funding under the Wildfire Resilience Program. Both projects focus on the development of critical mapping data layers for wildfire resilience prioritization planning and project development. Existing data for both project areas are sparse, incomplete, and coarse in scale. Global climate change, 100 years of fire suppression, suppression of tribal burning, and development in wildland urban interface continue to increase wildfire hazard throughout the region. Tribal, local, state, regional, and federal agencies and land managers need immediate and intuitive access to reliable, fine scale data on wildland fuel structure and topography which will enable them to plan for, respond to, and recover from wildfires, climate change, and other disasters. High quality data is foundational to high quality, inclusive planning and strategic prioritization of projects and initiatives - enabling collaboration among tribal, federal, state and local governments, as well as community organizations such as resource conservation districts and nonprofits.

The data created by these two projects will support:

- Wildfire and climate adaptation planning: vegetation management and fuel load reduction, evacuation planning, identification of communities at risk, home hardening and infrastructure hardening, biomass utilization planning, toxic runoff potential, community education and outreach.
- Wildfire response: evacuation planning, fire behavior modeling of rate of spread based on canopy surface, structure type and topography, and communications.
- Wildfire recovery: post-fire: toxics and hazard abatement, Watershed Emergence Response Team reports, habitat and water supply protection, communications, habitat restoration and fire response mitigation/clean-up.

Lidar-Derived Data Layers

Both projects include developing lidar derived data layers. Lidar, an acronym for “light direction and ranging”, is a method of remote sensing that uses light in the form of pulsed lasers to measure distance. Lidar point clouds are data points of detailed 3-dimensional measurements of topography and land cover such as buildings and vegetation. Lidar data can support a variety of applications for planning, decision making, and positive outcomes on the ground in communities and landscapes.

Creating statewide lidar point clouds is a high priority for both the U.S. Geological Survey (USGS) and the California Natural Resources Agency. Over the last two years, both agencies and others have funded lidar data collection of the 12 counties covered by these two projects. Combining the new lidar with other recently collected point clouds will produce continuous, countywide lidar point clouds for the north and central coast counties. However, lidar point clouds alone are not readily usable, especially if the point clouds are derived from different data sets, as is the case with these two project areas. The point clouds must be converted into derivative map layers for them to be usable by scientists, planners, local jurisdictions, tribes, resource conservation districts, and nonprofits. The lidar derivative layers developed will include a variety topographic and forest structure layers such as slope, aspect, canopy height, canopy density and ladder fuels. This data will be free and available for public use.

COUNTY of HUMBOLDT (Fiscal Sponsor for NORTH COAST RESOURCE PARTNERSHIP)

\$362,049

North Coast Lidar Dataset Project

Del Norte, Siskiyou, Modoc, Humboldt, Trinity, Mendocino, Lake, Napa, and Sonoma Counties

The North Coast Lidar Dataset Project involves the development of lidar derivative topographic and forest structure data layers for the following nine counties: Sonoma, Napa, Lake, Mendocino, Humboldt, Trinity, Del Norte, Siskiyou, and Modoc. The counties encompass the lands of 35 federally recognized California Native American tribes, as well as private, state, local, and federal lands. The region is a significant source for the state’s water, biological diversity and substantial amounts of the state’s forest-based carbon. The region comprises more than 16% of California’s geography, and roughly one third of California’s coastline. These

counties are rich in natural resources but generally economically disadvantaged with a significant portion of project area identified as low income communities.

The project will leverage investments in lidar point cloud collection by USGS, California Natural Resources Agency, and local county partners on the north coast by processing the data point cloud data sets and creating fine scale (1-meter) derivative layers across the nine counties to provide land managers and the public with unhindered access to 'best available' datasets for vegetation structure (e.g., vegetation height, vegetation density, ladder fuels), topography (e.g. slope, aspect, elevation). The project also includes the development of easy-to-use data access tools, education, outreach programs, and workshops to instruct county, tribal, nonprofit, state, and federal users on incorporating the data sets into their wildfire activities. The derivative data layers will also be used to improve resource planning activities throughout the region. The datasets will be placed in the public domain and will be accessible to stakeholders and the public via a web platform.

The project will be led by the North Coast Resource Partnership (NCRP) with the County of Humboldt as their fiscal sponsor. NCRP is a regional collaborative that includes over two thousand partners, is governed by a Leadership Council comprised of representatives from north coast tribes and county boards of supervisors, with a Technical Peer Review Committee comprised of tribal and county appointees, and a diverse staff team. The data layers produced by this project will also support NCRP's current work on a regional prioritized plan for wildfire resilience for the North Coast region, with funding from the California Natural Resources Agency and Department of Conservation. This regional plan aligns with and supports the California Governor's Wildfire and Forest Resilience Task Force Action Plan, as well as the objectives of the Shared Stewardship Agreement between the US Forest Service and the state of California. Broad community and partner engagement during the planning process ensures that the priorities listed in the plan are aligned with state and federal agency objectives, and reflect the priorities of the communities in the North Coast region. Several of the recommendations in the plan are related to the development of data products and assessments needed to enhance the pace and scale of wildfire, climate change, and extreme event resilience.

Grant Applicant Qualifications: The project will be led by the North Coast Resource Partnership (NCRP) – a regional collaborative that includes over two thousand partners, is governed by a Leadership Council. NCRP has engaged in collaborative data development and integrated planning and project implementation since its inception in 2004 - investing over \$105 million in hundreds of projects that benefit the North Coast Region's communities and watersheds. In addition to local and tribal governments, NCRP partners include water and wastewater service providers, NGOs, watershed groups, resource conservation districts, private landowners, businesses, cities, special districts, federal, state and local agencies, and environmental and agricultural groups. NCRP's fiscal sponsor, the County of Humboldt, offers necessary administrative and financial assistance for the organization.

COASTAL SAN LUIS RESOURCE CONSERVATION DISTRICT

\$727,700

Central Coast Lidar and Wildfire Mapping Project

Monterey, San Benito, and San Luis Obispo Counties

The Central Coast Lidar and Wildfire Mapping Project includes two components 1) Processing of lidar point cloud data to develop topographic and forest structure data layers for San Benito, Monterey, and San Luis Obispo Counties, and 2) Developing wildland fuel, risk, and hazard data maps for San Benito, Monterey, and San Luis Obispo Counties using the data layers developed in component 1.

The Central Coast of California is home to some of the most ecologically diverse ecosystems in the United States, including thousands of acres of protected open space within federal, state, and local jurisdictions. The area's wild and working lands provide residents and visitors with income, water, varied recreation opportunities, scenic vistas, wildlife habitat, and vital refuges for many threatened, endangered, and special status species. From Pinnacles National Park to the state park beaches that pepper Hwy 1, to the vast agricultural lands of the Salinas Valley, to the ridges and rangelands inland, San Luis Obispo, Monterey, and San Benito Counties' resources provide numerous ecological, economic, and social benefits that are vitally interlinked to their communities. Drought, bark beetle kill, diseases, and climate change have resulted in abnormal accumulation of stressed vegetation that is reaching a critical stage across these three counties. Significant portions of these three counties are in very high and high severity zones as defined by CAL FIRE's Fire and Resource Assessment Program. Many communities in these counties are located within the wildland urban interface (WUI).

In 2023, the California Department of Fish and Wildlife granted funds to the Coastal San Luis Resource Conservation District (RCD) for the creation of 20+ class vegetation maps, known as enhanced lifeform maps, which spans the 5.1 million acres of Monterey, San Benito, and San Luis Obispo Counties. The maps will classify the landscape into broad categories such as deciduous hardwood forest, evergreen hardwood forest, herbaceous, wetland, etc. The enhanced lifeform maps and the lidar derived products provide the basis for fine scale vegetation type maps (120+ classes) and wildland fuels, wildfire risk, and hazard maps.

Imagery, lidar data, stakeholder input, existing data layers, and field reconnaissance will be used to create the suite of wildland fuel, wildfire hazard, and risk landscape data layers. These data layers will be combined with human vulnerability and ignition probability datasets to develop wildfire hazard and wildfire risk to structures datasets. The wildfire hazard and wildfire risk to structures datasets will be designed with input from local stakeholders which will include landowners, federal, state, and local agencies, CAL FIRE, Fire Safe Councils, elected officials, and open space districts, among others.

This project is critical for planning and developing wildfire resilience projects in the central coast. Further, the Conservancy has funded wildfire resiliency planning projects in San Benito, Monterey, and San Luis Obispo Counties in the last year. The wildfire datasets will be important to Conservancy partners as they develop their respective regional priority plans and portfolio of priority projects. The Conservancy has contributed to this type of mapping in other counties including Alameda, Contra Costa, and Santa Clara Counties. Similar to these other projects, all

data layers developed from this project will be placed in the public domain and will be accessible to stakeholders and the public via a web platform. With the completion of this project, all counties of the Governor's Wildfire Resilience Task Force Central Coast Resource Kit area will have lidar derivative data and wildland fuel, risk, and hazard data layers.

Grant Applicant Qualifications: The Conservancy has had a 30-plus year partnership with the Coastal San Luis RCD working on a variety of projects in San Luis Obispo County. RCD staff and its board have maintained a consistent presence in the region and have a long record of successfully completing projects, managing property interests, and ensuring maintenance of improvements funded by the Conservancy. The staff and board continue to demonstrate the capacity to effectively develop and implement high priority projects and to administer grants from the Conservancy and other state and federal agencies.

CONSISTENCY WITH CONSERVANCY'S PROJECT SELECTION CRITERIA:

The proposed project is consistent with the Conservancy's Project Selection Criteria, last updated on September 23, 2021, in the following respects:

Selection Criteria

1. Extent to which the project helps the Conservancy accomplish the objectives in the Strategic Plan.

See the "Consistency with Conservancy's Strategic Plan" section below.

2. Project is a good investment of state resources.

The proposed projects are a good investment of state funding. The projects are feasible, have reasonable budgets, and address demonstrated needs. The projects implement many statewide wildfire and forest resiliency goals. The proposed projects are consistent with several state plans, and specifically with the following:

- California's Wildfire and Forest Resilience Action Plan (Governor's Forest Management Task Force, January 2021), which calls for activities such as fuels reduction, forest thinning, vegetation management, prescribed fire, shaded fuel breaks, defensible space, and enhancement of fire-prone habitats to reduce fire risk.
- The California Forest Carbon Plan (California Natural Resource Agency, 2018), which calls for restoration of natural fire regime and forest composition through a multitude of approaches including thinning, prescribed burns, invasive vegetation management, and shaded fuel breaks.
- The Community Wildfire Prevention & Mitigation Report (CAL FIRE, 2019), which urges state and local agencies to implement the goals of the Carbon Forest Plan and lays out recommendations to agencies to increase the scale and pace of management and mitigation actions to improve forest health and resiliency.

Both projects leverage other significant state investments for acquisition of lidar point cloud data, processing and mapping.

3. Project benefits will be sustainable or resilient over the project lifespan.

The proposed projects will help increase the pace and scale of wildfire resilient project development, which will ultimately reduce the risk of catastrophic wildfire impacts to communities. The lidar derivative data layers are important data sets needed for the development of fine scale vegetation mapping which is used for planning a variety of conservation, restoration and stewardship projects.

4. Project delivers multiple benefits and significant positive impact.

The proposed projects will help increase fire resiliency in the context of anticipated climate change. Fire resilience is a critical issue due to increased average temperatures, reduced marine fog, and longer and more severe droughts. California is facing unprecedented fire risk due to climate change, a growing populace, and an increasing number of people living in high fire risk areas, including areas adjacent to wildlands. While 2022 and 2023 had a relatively mild wildfire season, both the 2020 and 2021 fire seasons broke numerous records.

These two projects include long-term investments that will enable wildfire resilience work to continue into the future.

PROJECT FINANCING

Coastal Conservancy	\$1,089,749
Other Funding	<u>\$10,362,974</u>
Project Total	\$11,452,723

The anticipated source of funding is the Fiscal Year 2023-24 appropriation from the General Fund to the Conservancy for the purpose of wildfire risk reduction (The Budget Act of 2023, as amended by AB 102 (2023)). The proposed project is consistent with this funding source because it will help increase the pace and scale of wildfire resilience projects and ultimately reduce the risk of catastrophic wildfire.

Over \$8.6 million dollars in funding has been secured for the North Coast Lidar Dataset Project from private and public sources including the California Natural Resources Agency (\$3,000,000), USGS (\$3,565,374).

The California Department of Fish and Wildlife is contributing \$1,487,600 to the Central Coast Lidar and Wildfire Mapping project. Additional funders of the central coast project include California Natural Resources Agency and US Department of Agriculture’s Natural Resources Conservation Service.

Unless specifically identified as “Required Match,” the other sources of funding and in-kind contributions described above are estimates. The Conservancy does not typically require matching funds or in-kind services, nor does it require documentation of expenditures from other funders or of in-kind services. Typical grant conditions require grantees to provide any funds needed to complete a project.

CONSISTENCY WITH CONSERVANCY'S ENABLING LEGISLATION:

Chapter 3 of Division 21 of the Public Resources Code authorizes the Conservancy to address the impacts and potential impacts of climate change on resources within the Conservancy's jurisdiction (Section 31113(a)).

Pursuant to Section 31113(b) and 31113(c), the Conservancy is authorized to award grants to nonprofit organizations and public agencies to undertake projects that include reducing greenhouse gas emissions, and addressing extreme weather events, sea level rise, flooding, and other coastal hazards that threaten coastal communities, infrastructure, and natural resources.

Pursuant to Section 31113(c), the Conservancy must prioritize grants for projects that maximize public benefits and have one of several purposes, including reducing emissions of greenhouse gases.

Consistent with these sections, the proposed projects will generate the data necessary to plan projects that will restore the health and resilience of California's forests, grasslands, or natural lands and reduce the risk of wildfire. The projects will generate the data necessary to help California's natural lands to be more resilient to catastrophic wildfires which may ultimately reduce greenhouse gas emissions released from increased wildfires due to climate change.

The proposed projects address the impacts of climate change on natural resources within the Conservancy's jurisdiction by helping to improve forests, grasslands, or natural lands and reducing the risks of wildfire that would adversely impact water quality and habitat in a coastal watershed (Chapter 5.5 of Division 21 of the Public Resources Code).

CONSISTENCY WITH CONSERVANCY'S [2023-2027 STRATEGIC PLAN](#):

Consistent with **Goal 4.2 Wildfire Resilience**, the proposed projects include two wildfire resilience planning projects.

CEQA COMPLIANCE:

The proposed projects are categorically exempt under the California Environmental Quality Act pursuant to 14 California Code of Regulations (CCR) Section 15306 (Information Collection), which exempts data collection and research activities that will not result in a serious or major disturbance to an environmental resource. The projects consist only of mapping and data collection activities and will not result in any major disturbances to the environment. The projects are also statutorily exempt under 14 CCR Section 15262 (Feasibility and Planning Studies), which exempts planning for possible future actions that have not been approved or funded. This project consists of planning activities for possible future work that has not been approved or funded.

Upon approval of the project, Conservancy staff will file a Notice of Exemption.